SOME AUTO SHOW FEATURES.

INDUSTRY NOW IS FIRMLY ESTABLISHED.

Exhibitions Prove That the Awkward Days of Automobile Construction Are Over—Air of Elegance and Stability About the Cars—Some of the Novelties.

The larger of the Columbia gasolene models for 1907 is shown in a seven seated touring body and also in a seven seated limousine body. Both of these bodies are exquisite examples of the coachmaker's art. Their lines are extremely stylish, and in both of the models there is an air of elegance and stability. The interior fittings are both luxurious and well arranged. The upholstery is in a delicate shade of morocco and broadcloth.

The wheel base of the touring car is 117 inches and the limousine 119½ inches. The engine shows many improvements over the engine of the large Columbia for 1906. The cylinders are 5x5, cast in pairs; valves are all mechanically operated; the crankshaft is cut from a solid slab of chrome nickel steel; ignition is from a storage battery, with an auxiliary battery for emergencies; the oiler is mechanical, with sight feeds to all main bearings and splash feed to the cam shaft bearings; the transmission is sliding gear; the brakes have enlarged surfaces, and the wheels, which are made of selected material, run on Timken roller bearings; the rear springs are elliptic and the front springs half elliptic.

The frame is pressed steel, strongly braced on the corners and hot riveted; the front axle is of the I-beam type with drop forged pivot ends and hand forged centre with no welding whatever.

The total weight of the car is 3,400 pounds. It has four forward speeds and one reverse; double side chain drive; a twenty-four gallon gasolene tank; conical leather faced clutch; jump spark ignition; internal expanding footbrake acting on the ends of the sprocket shaft and an internal expanding emergency brake acting on the rear wheel hubs. The standard models are done in dark green with limousine optional.

"This show bespeaks the quiet dignity of an established industry," remarked Charles B. Shanks at the Winton exhibit yesterday. "When a man builds a house brick, stone lumber and mortar are littered all around the place, but when the house reaches perfection decency and order succeed confusion and muss.

"So in the automobile industry—its constructive periods brought loud talk, hip hurrahs, blatant challenges, freaks, weird advertising, heterogeneous show decorations and other manifestations of unsettled conditions. And the manufacturers who still indulge in performances of that nature are unconsciously testifying to their own behind-the-times-ness.

"At this show we see the exhibitors conducting themselves like established business men. The rough edges of their awkward days are gone. There is no loudness in their advertising. There is no side show barking, no tossing of gauntlets, no trail of red paint in their wake, no ruffled feathers, no tomahawks or other evidences of barbarism.

"This is an altogether different show, because the exhibitors have emerged from raw conditions. Men are known by their works, and the dignified excellence of this show not only bespeaks the substantial character of the men who have made the show, the exhibitors, but necessarily it infers the excellence and merit of their chief works—the cars they build."

In the basement, to which all commercial vehicles have been relegated, the Knox company is showing two models of its large trucks, respectively of 3,000 and 6,000 pounds, one of which has been purchased by the Steinway Company of New York. In addition to these models there is one of the latest developments in the automobile industry, a combination emergency and chemical automobile wagon for use by progressive fire departments. The fire fighting equipment is furnished by the Combination Ladder Company of Providence, R. I., which has after some extensive investigation chosen the Knox car as a standard for this work, and the model will in future be listed by both companies. It is fitted with two chemical tanks and the usual first aids in fire fighting apparatus. Naturally, the principal value of such a car is in the promptness at which it arrives at a fire and the consequent increase in salvage. This point has been emphatically demonstrated by a somewhat similar car constructed by the Knox company for the Springfield, Mass., fire department and which has been not only unqualifiedly successful but the cynosure of the insurance eyes of the country since it was put into commission, the resultant saving being such as to call for the strongest commendation of the insurance companies.

At the Royal Tourist exhibit yesterday Archie McLachlan gave out the first information about the 1907 Royal Tourist car which is shortly to be placed in commission by the Bullfrog Mining Company of Goldfield, Nev. The chassis is of standard Royal construction, but the body and equipment are away out of the ordinary, as the car is destined for a very arduous campaign. It is a four passenger car with divided seats front and rear. The rear seat—that is, the tonneau seat—has been brought forward within eighteen inches of the back of the front seat. Between the rear seats a scoop has been built to accommodate four tires. Attached to the back of the rear seat is a copper gasolene tank with a capacity of forty-five gallons. Under the rear seat the body is extended fifteen inches. Storage space is provided there for cooking utensils, tools, folding wire mattresses, &c.

Oil tanks with a capacity of ten gallons are fitted on the footboards, which have been specially built for hard service. Provision has also been made on the footboards for the carrying of a considerable amount of luggage. The body is equipped with top irons for standards, not for a top, however, but for the wire mattress, which is to be used by the occupants as a bed when caught en route away from any habitation. The car is to be used by the Bullfrog Mining Company's officers and engineers in travelling over the rough country in and around their mining properties, when quick action is needed by some occurrence such as a strike. Heretofore the means of transportation has been by bronco or a slow going stage line. The order for the Royal Tourist was given after the mining company was convinced of its reliability. This conclusion was reached after closely watching the performances of the three Royal Tourist cars that are in the stage service between Bullfrog and Reno.

So firmly imbedded in the minds of automobilists is the idea that the term clutch relates to a piece of mechanism, between the motor and the transmission that the great majority would probably look incredulous if some one were to say that two clutches were necessary on a car.

But one car now on display in the Garden has a pair of them in its mechanism and the second one, while it cannot be classed as so all important as the one first referred to, has by no means inconspicuous part to play in the motor ensemble.

When the Thomas engineers began their experiments with their new model in the early days of the summer last year one of the ideas they wanted to work out was some means to get away from a belt drive fan. Some device was necessary to make the drive of the fan behind the radiator positive and not leave a chance for the binding or slipping that often occurs when a belt is used. Of course they hit on the shaft drive with bevel gears, working from the crank shaft gear. But then their work was only half finished, since some way must be found to do away with the strain on the entire drive caused by the sudden starting of the engine.

At first a long coil spring was tried, but this soon proved to have its disadvantages, and then the shaft was split and two ratchets installed, these to mesh and hold as soon as the motor and fan speed were in accord. But objections soon developed against this plan too, and it was then that a bit of ingenuity came into play that solved the problem. A metal to metal cone clutch was put in between the bevel gear nearest the fan and the fan itself. An adjustable coil spring was fitted to this and another test begun. It proved satisfactory and since that date no trouble has been experienced.

This clutch slips until the inertia of the fan is overcome and its speed is in correct proportion to the engine revolutions when it locks. A further improvement was made by giving the fan shaft and double gears a separate feed from the mechanical oiler and then the engineers could turn their thoughts to other things.

One of the leading exhibits at the show is the first practical American made detachable rim, shown in the Fisk exhibit. The principle on which this rim is based is totally different from any foreign detachable rim in use and to all practical appearances appears infinitely superior. The rim can be removed without deflating the tire in twenty seconds by simply loosening six nuts on the face of the rim itself. These nuts hold in place a narrow steel strip which operates on the beveled edge of the frame over the spokes. When the nuts are tightened these steel strips, running separately from bolt to bolt, work up against the frame and form a ridge, which with a second immovable ridge at a distance of two inches forms a groove into which the rim fits and is held fast by the screwing up of the nuts over the bolt. The mechanical process is remarkably simple and rapid and withal is of the utmost practicability.

The Buick Motor Company, by reason of extensions and additions to its group of plants at Flint and Jackson, Mich., will produce more than double the number of cars this year than the company has made in any past season. This makes it possible for the company to consider the demand by European countries for a well built, reliable motor car at a popular price.

The Buick company has closed negotiations with John L. Poole to take the management of its foreign sales department, which is likely to be an important branch of the business. For the past five years Mr. Poole has been a representative of American manufacturers in this line abroad and during that time has gained an experience most valuable and which especially fits him for the work. He has sold cars in England, France, Germany, Austria, Italy, Spain, Denmark, Norway, Sweden and Russia—in fact has placed American automobiles in every prominent city in Europe. Mr. Poole's headquarters will be in Paris, France, care of the American Express Company.

In speaking of the trade conditions, Mr. Poole said:

"American manufacturers, as a rule, have a greatly exaggerated idea of the volume of business to be obtained in foreign countries. Up to the present time the business has not been large, but there is a growing demand for a good, well made, medium priced car, simple in its construction, reliable and with plenty of power. A portion of this business can be obtained and held by American manufacturers when they can demonstrate in competition the superiority of their wares and by the adoption of such methods as will inspire confidence. Any manufacturer who attempts to use the foreign market as a dumping ground for cheap material and poor construction and who does not provide for the prompt and careful handling of the business to quite the same extent as he does his home trade will not succeed and will only create expense for which there will be no adequate returns."

Mr. Poole has been for some weeks visting the several factories of the Buick Motor Company and becoming thoroughly acquainted with the line. Soon after the New York show he will start for Paris, when an active campaign will be inaugurated.

Few persons realize the enormous expenses automobile manufacturers incur in keeping their machine shops equipped with up to date machinery. Old machines are frequently thrown aside regardless of their cost and their places filled with newer machines that are better adapted to automobile construction work.

In the last year the Autocar Company of Ardmore, Pa., has installed forty-six pieces of new machinery. One of the largest and most intricate machines is a Landis crank shaft grinder, which alone cost more than $1,800. The nicety of the construction of his machine may be better understood when it is known that the Autocar system of factory tests requires each bearing of the crank shaft to be ground to the fineness of one-thousandth of an inch.

The report of the appraiser who recently appraised the Autocar Company's factory at Ardmore, Pa., shows that the Autocar plant is not only one of the best equipped automobile manufacturing plants in the country but that every inch of its 90,000 square feet of floor space is used to the best possible advantage. The appraiser reports that not an obsolete machine was to be found in the entire plant.

The particular feature of the Hotchkiss display is the six cylinder 70 horse-power demi-limousine car which was sold just before the show to E. R. Thomas, the banker, and was exhibited by Mr. Thomas's special permission. The car is finished in gray and red, the Thomas racing colors, and has a detachable front, which, when removed, gives a cab effect in the rear. The 120 horse-power Vanderbilt cup racing car, which was also purchased by Mr. Thomas, is on exhibition in the space allotted it by the A. L. A. M.

There is also a 35 horse-power limousine which is painted green with white stripes. This car is upholstered in green leather, with the driver's seat untufted. The inside of the car is upholstered in English Bedford cord, and is thoroughly equipped, the front seat being upholstered in untufted maroon colored morocco leather.

A landaulet exhibited is a snappy 20-30 horse-power model painted red, with the front seat upholstered in heavy red morocco leather untufted. The inside is upholstered in light tan English Bedford cord. The car is fully equipped with speaking tube, horn, lamps, &c.

All the Hotchkiss cars shown by Archer & Co. at the show have bodies made by Brewster & Co.

A handsome car shown at the Peerless booth is the 45 horse-power special Peerless roadster, with a small racing body carrying four persons. This is finished in royal blue, with cream yellow running gear and top of a harmonious shade of blue. This car is equipped with a set of special imported lamps, the lenses of which are of the concentric type and similar, excepting for size, to those used in lighthouses. It is said that these lamps will throw light at least a thousand feet and will diffuse the light so well that all objects between fences of an ordinary road are plainly visible.

The almost impassable roads encountered by the contestants in the recent endurance run from Philadelphia to Harrisburg and return are now famous for the difficulties they presented to motor travel, in view of which the performance of the Stearns car stands out as one of exceptional merit. It was a topic discussed at the Stearns stand yesterday with interest.

A stoppage in the carbureter deprived it of the privilege of making a clean score, but after it was remedied the delay afforded opportunity for making up time. It is doubtful if any other car in the run could have covered the distance from Philadelphia to Harrisburg in four hours and twenty minutes, as the Stearns did, arriving first at the finish, one hour and five minutes ahead of the schedule. Many of the cars had difficulty in covering the ground on schedule time because of the frightful condition of the highways.

After the initial misfortune, which was in no way chargeable to the car, it ran beautifully, covering much of the distance at a speed between fifty and sixty miles an hour. The rough usage did not injure the car in any way, it being in perfect order and adjustment at the end of the interesting trip.

It is such performances as these, even more than the technical points scored in the contests, that prove the ability of an automobile to give satisfactory service.

The Winchester Speedometer Company are showing their well known speed and distance indicating devices in operation. The improvements which have been made in the 1907 Winchester speedometer may be characterized as refinements in detail. This implies those changes in material and mechanical detail which make for greater efficiency and durability. Briefly enumerated, they are as follows: Steel to bronze bearings throughout; a flexible shaft and shaft case easily detached from the instrument without removing the latter from the dashboard; a bevel gear attachment for the flexible shaft which obviates the necessity of an abrubt bend in the shaft at the steering knuckle, and an improved key which requires but a few turns to reset the tripodometer portion of the instrument to 000.0. The new model E instrument indicates speed up to seventy-five miles and is especially designed for high power cars.

The Pope Menufacturing Company is exhibiting its new Pope-Hartford, model L, 25-30 horse-power, four cylinder vertical water cooled car, in tonneau style, and also as a runabout, showing separate chassis. The new Pope-Tribune, type X, a 15-20 horse-power, four cylinder vertical water cooled runabout, manufactured at Hagerstown, Md., is also shown, as is the Pope-Toledo, type XV, a 50 horse-power, four cylinder vertical water cooled touring car, seating seven persons, with all modern improvements, steel construction, multiple disc clutch, four speeds forward and reverse, and other modern improvements. The Pope Waverly electrics are exhibited in the exhibition hall, formerly known as the restaurant, and the new model 67 Pope-Waverly phaeton is among the attractive vehicles shown in this exhibit. A Pope-Waverly truck is exhibited in the basement, showing the development in commercial vehicles. In addition to the Hartford continent, H. H. Rice and W. C. Johnson, manager and assistant manager, respectively, of the Indianapolis plant, are in attendance, and from Toledo are A. E. Schaaf and H. S. Leyman, manager and assistant manager of that department.

Some technical commentators have inferred that the air cooled car is losing ground, because of one or two firms adding a water cooled model to their air cooled line. The fact seems to be that these concerns always were of unsettled opinion regarding the two systems and are not truly deserters. There is other evidence to show that in good watercooled systems the air cooled engine is gaining. The remarkable record of the Knox baggage truck on the Glidden tour last summer seemed a conclusive triumph for that type of car. As the same concern has made a marked success with a 40 horse-power touring car, the waterless type would appear to be moving onward blithely.

To many who were identified with the bicycle business the name of T. F. Byrne will sound familiar, for it was he who purchased the material for the old Stearns Yellow Fellow, later became secretary of the Stearns Canadian Company, and finally went to Australia as manager for the Canada Cycle and Motor Company. He now has returned from that far off land, accepting a position with the Franklin Automobile Company as manager of its Chicago branch, which duties he has already taken up.

CANOE FOR BRITISH TROPHY.

Westchester Boat Club Will Try to Win International Race.

The Westchester Boat Club will try and capture the trophy of the Royal Canoe Club of Great Britain, which is to be raced for next August. Announcement was made a few weeks ago that this trophy was to be put in competition again, and already entries have been made by Austria, Italy, France and Belgium, and with an entry from this country and the defending canoe representing Great Britain six countries will be represented in the race. It is possible that more entries will be made before May 1, when they close.

The announcement that the Westchester Boat Club would compete was made by Charles Burgess. The races are for sailing canoes and each competitor must be a bona fide amateur and must be nominated by a regularly organized and recognized yacht or canoe club. The races are to be sailed on salt water and will probably be on the Solent, and the course is ten miles in length. At least two races must be sailed, and if one canoe wins both the international cup is awarded to the owner. If two canoes win a third race must be sailed in which these two start.

The canoes must be in class B. They must be not less than 12 feet 6 inches on the water line, nor more than 17 feet. The beam must be less than 3 feet 6 inches and no seat is to be extended beyond the side of the hull. The depth inside must be not less 12 inches and the keel must be of sufficient width to accommodate a centreboard. There must be a sleeping compartment between the transverse bulkheads, with a direct hatchway above it of 3 feet in length and 18 inches in width. Any certified sails may be carried, and in addition a trysail not exceeding 75 square feet.

The challenges for the trophy have been made as follows: America, Westchester Boat Club, Charles Burgess; Austria, M. Fried; Belgium, Royal Yacht Club de Belgique, M. A. Oboussier; France, Cercle de la Boile de Paris, Albert Glandaz; Italy, Regio Verbano Yacht Club, M. G. Brambillo.

BOAT FOR LOUIS GOSSERT.

Cabin Yacht Which Is to Be Ready by the Opening of the Season.

A cabin power boat is being built at Milton Point for Louis Bossert from designs by Henry J. Gielow. Mr. Bossert used to own the schooner Coronet which won the race across the ocean against the Dauntless. The new boat will be 47 feet 3 inches over all, 45 feet 6 inches on the water line, 10 feet beam and 2 feet 3 inches draught. It is to be fitted with a 25 horse-power Standard motor, which will give it a speed of thirteen miles an hour.

The boat is to be very substantially constructed. The keel, stern and stern post will be of oak, the frames of oak steam bent, the planking will be of yellow pine and the deck of white pine. All the joiner work will be of mahogany rubbed down and finished bright. The boat is to be built to stand heavy weather and with her light draught she will be able to make almost any harbor.

Under a forward deck and forward of a water tight bulkhead will be the gasolene tank, made of copper, fitted in a copper lined compartment and drained outboard. Aft of this will be the chain locker and next will come the icebox, so arranged as to be filled from the deck and having its food compartment open into the cabin. Aft again for a distance of 21 feet will be a long trunk of the hunting cabin type, having an average height above the deck of 27 inches. The trunk is fitted with circular ports, but to insure additional light and good ventilation there will be two low skylights. At the forward end of this space there will be a cabin with transoms on each side and fitted with lockers. This will be large enough for four persons to sleep in. Aft of this cabin will be the toilet room on the starboard side, and on the port side a passageway leading to the engine room and the cockpit.

The cockpit is 12 feet long. It will have a seat across the after end and the other seats are to be wicker chairs. The yacht is to be ready for delivery on May 1.

Changes in the Auxiliary Julia.

Some changes are being made in the auxiliary schooner Julia, owned by John H. Sanderson of the New York Yacht club. The old motor is to be removed and a Standard of 100 horse-power substituted. The yacht will also be fitted with a Craig feathering propeller. The Julia is now at the foot of Fifty-seventh street, South Brooklyn, and the changes are being made under the supervision of A. Cary Smith & Ferris.